

### LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method of operating a content distribution network switch in a content distribution network comprising the steps of:

receiving a packet from a client associated with a secure communication connection;

extracting information from the packet to identify a cache server in the content distribution network that ~~has~~ maintains state information on the secure communication connection, wherein the information extracted from the packet comprises a session identifier used to compute a label identifying the cache server; and

directing the packet towards the identified cache server.

2. (Canceled)

3. (Previously presented) The invention of claim 1 wherein the label identifying the cache server is computed from the session identifier by a function  $f(\text{SID})$  where SID is the session identifier.

4. (Original) The invention of claim 3 wherein the function  $f(\text{SID}) = \text{SID} \text{ MOD } n + 1$  where  $n$  is the number of cache servers that can store the state information on the secure communication connection.

5. (Original) The invention of claim 4 wherein the secure communication connection is a Secure Sockets Layer connection.

6. (Original) The invention of claim 1 wherein the information extracted from the packet comprises a client address which is associated with a cache server.

7. (Original) The invention of claim 6 wherein associations between client address and cache server are stored in a table.
8. (Original) The invention of claim 7 wherein the secure communication connection is a Secured Sockets Layer connection.
9. (Original) The invention of claim 6 wherein associations between client address and cache server are generated by a hash function.
10. (Original) The invention of claim 9 wherein the secure communication connections is a Secure Sockets Layer connection.
11. (Currently amended) A method of operating a cache server in a content distribution network comprising the steps of:
- selecting a session identifier that may be utilized by a content distribution network switch to direct packets associated with a secure communication connection to the cache server;
  - negotiating a secure communication connection with a client; and
  - maintaining state information for said secure communication connection by said cache server.
12. (Original) The invention of claim 11 wherein the session identifier can be used to compute a label identifying the cache server using a function  $f(\text{SID})$  where SID is the session identifier.
13. (Original) The invention of claim 12 wherein the function  $f(\text{SID}) = \text{SID} \text{ MOD } n + 1$  where  $n$  is the number of cache servers that can store the state information on the secure communication connection.
14. (Original) The invention of claim 13 wherein the secure communication connection is a Secure Sockets Layer connection.

15. (Previously presented) A method of operating a cache server in a content distribution network comprising the steps of:

negotiating a secure communication connection with a client;

creating state information necessary for reuse of the secure communication connection with the client; and

sharing the state information with other cache servers in the content distribution network to which the client requests may be redirected.

16. (Original) The invention of claim 15 wherein the secure communication connection is a Secure Sockets Layer connection.